



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,312	10/14/2003	Blaine J. Thurgood	2269-5520.1US (02-0676.01)	5043
24247 7550 04/16/2008				
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110				
EXAMINER				
CHANG, RICK KILTAE				
ART UNIT		PAPER NUMBER		
3726				
NOTIFICATION DATE		DELIVERY MODE		
04/16/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTOMail@traskbritt.com

Office Action Summary**Application No.**

10/685,312

Applicant(s)

THURGOOD, BLAINE J.

Examiner

Rick K. Chang

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/3/08 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 14-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corisis (US 5,818,698) in view of Akram (US 5,817,535).

Re claims 1, 15: Corisis discloses providing a rectangular, substantially planar substrate (10) having a longitudinal axis (left and right of 10 in Fig. 3); and forming an elongated multisegmented interconnect slot (16) in the substantially planar substrate having a longitudinal axis positioned approximately colinear to the longitudinal axis of the substantially planar substrate (left and right of 10 in Fig. 3) comprising: sizing, configuring and positioning a first segment of the elongated multisegmented interconnect slot and at least a second segment of the elongated multisegmented interconnect slot for respective alignment with a first plurality of bond pads and at least a second plurality of bond pads on a single semiconductor die

to be placed on the substantially planar substrate to enable respective access to the first plurality of bond pads and the at least a second plurality of bond pads through the first segment of the elongated multisegmented interconnect slot and the at least a second segment of the elongated multisegmented interconnect (as shown in Fig. 3, sizing, configuring and positioning is disclosed since 16 are formed in the manner wherein an elongated multisegmented interconnect slot (16) in the substantially planar substrate (10) having a longitudinal axis positioned approximately colinear to the longitudinal axis of the substantially planar substrate); wherein sizing, configuring and positioning the first segment of the elongated multisegmented interconnect slot and the at least a second segment of the elongated multisegmented interconnect slot further comprises removing at least a portion of the material from the substrate (16 are holes) along the longitudinal axis of the substrate (left and right of 10 in Fig. 3) and positioning at least one crosspiece (between 16s) substantially transverse to the longitudinal axis of the substrate (left and right of 10 in Fig. 3) to form a first segment of the elongated multisegmented interconnect slot (one 16 located far left) and at least a second segment of the elongated multisegmented interconnect slot (another 16 located adjacent to one 16 along the longitudinal axis) separated by the at least one crosspiece (between 16s), except for a dielectric material.

Akram discloses a dielectric material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Corisis by a dielectric material, as taught by Akram, for the purpose of insulating the conductors from each other.

Re claims 14 and 20: Corisis discloses positioning the at least one crosspiece (in the center of 10) substantially at a longitudinal midpoint of a total length of the elongated multisegmented interconnect slot (fourth 16 and fifth 16).

4. Claims 2, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corisis (US 5,818,698)/Akram (US 5,817,535) as applied to claims 1, 15 above, and further in view of Weber (US 5,597,643).

Corisis/Akram fail to disclose milling.

Weber discloses milling.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Corisis/Akram by milling, as taught by Weber, for the purpose of removing excess material with a minimum of burrs.

5. Claims 3, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corisis (US 5,818,698)/Akram (US 5,817,535)/Weber (US 5,597,643) as applied to claims 1-2, 15-16 above, and further in view of Parsons (US 3,635,124).

Corisis/Akram/Weber fail to disclose filled side edges on the crosspiece.

Parsons discloses filleted side edges on the crosspiece (39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Corisis/Akram/Weber by providing filleted side edges on the crosspiece, as taught by Parsons, for the purpose of forming smooth edges to reduce weight and material for wire bonding.

6. Claims 12-13, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Corisis (US 5,818,698)/Akram (US 5,817,535) as applied to claims 1, 15 above.

Corisis/Akram fail to disclose forming the elongated interconnect slot to a length of about 67 to 80% or more of a length of the substrate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the elongated interconnect slot to a length of about 70 to 80% of a length of the substrate, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the elongated interconnect slot to a length of about 67 to 80% or more of a length of the substrate, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Please provide reference numerals (either in parentheses next to the claimed limitation or in a table format with one column listing the claimed limitation and another column listing corresponding reference numerals in the remark section of the response to the Office Action) to all the claimed limitations as well as support in the disclosure for better clarity (optional). Applicants are duly reminded that a full and proper response to this Office Action that includes any amendment to the claims and specification of the application as originally filed requires that

the applicant point out the support for any amendment made to the disclosure, including the claims. See 37 CFR 1.111 and MPEP 2163.06.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick K. Chang whose telephone number is (571) 272-4564. The examiner can normally be reached on 5:30 AM to 1:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rick K. Chang/
Primary Examiner, A.U. 3726

Application/Control Number: 10/685,312

Page 7

Art Unit: 3726

RC

April 14, 2008